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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,701	11/09/2001	Hans-Ueli Roeck	34152	7952
116	7590	10/28/2004	EXAMINER	
PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			LEE, PING	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 10/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/044,701

Applicant(s)

ROECK ET AL.

Examiner

Ping Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on 8/23/04. These drawings are acceptable.

### ***Specification***

2. The incorporation of essential material on p. 13 in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

### ***Election/Restrictions***

3. Newly submitted claim 24 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 24 specifies an invention in an embodiment as shown in Fig. 2. This embodiment is distinct from the invention originally claimed which reads on Fig. 4.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

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prosecution on the merits. Accordingly, claim 24 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly amended claim 1 specifies "the parameters to be changed according to the hearing program switching are adjusting from a momentary value to a desired value in a smooth and fixed manner ..." (emphasis added). However, the specification as originally filed fails to enable one of ordinary skill in the art how the parameters are changed in a fixed manner. In fact, the specification as originally filed never used the phrase "fixed manner".

Claims 3 and 4 specify "a step response of a low-pass filter". However, the specification as originally filed never explain what "a step response of a low-pass filter" is. It was well known in the art that the frequency response of a low-pass filter is. For

examination purpose, the limitation is assumed to be a frequency response of a low-pass filter.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 5-8, 11, 12, 1/19, 2/19, 5/19, 6/19, 7/19, 8/19, 11/19, 12/19, 20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Killion et al (US 6,101,258).

In view of 112, 1<sup>st</sup> paragraph rejection above, the claims are rejected under broadest interpretation.

Regarding claim 1, Killion et al (hereafter Killion) disclose a method for operating a hearing device (hearing aid) in which one of several possible hearing programs (directional or omni-directional) can be selected at a given time in order to adjust to a momentary acoustic surround situation (see abstract), in that parameters of a transfer function (for example in Fig. 8 or 9, the parameters of unit 40 define the transfer function) provided between a microphone (20 and 15 in Fig. 8 or 9) and a hearer (although not shown, he/she inherently wears the hearing aid) can be changed (from directional to omni-directional), whereas the parameters to be changed (unit 40 or omni-directional response goes unaltered) according to the hearing program switching are

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adjusted from a momentary value to a desired value in a smooth manner (col. 9, lines 14-25) in order to provide a smooth transition from one hearing program to another.

In terms of the claimed "fixed manner", the parameters will be fixed when the ambient noise level is unchanged.

Regarding claim 2, although not explicitly show, the rectifier circuit in Fig. 8 or the logarithmic rectifier in Fig. 9 defines a time range. In col. 9, lines 14-25, Killion discusses the gradual decrement and gradual increment which also inherently has a time range.

Regarding claims 5 and 6, although not explicitly spelled out, Figs. 10-12 shows that the rectifier circuit in Fig. 8 or 9 is inherently a ramp generator.

Regarding claims 7, 8, 11, 1/19, 2/19, 5/19, 6/19, 7/19, 8/19, 11/19 and 12/19, Killion discloses that the momentary acoustic surround situation is recognized automatically (col. 7, lines 14-19) and that a hearing program is selected according to the recognized momentary acoustic surround situation (ambient noise).

Regarding claim 20, Killion discloses a hearing device (hearing aid), whereas at least one filter unit (150, 155, 170 in Fig. 8 or 150, 155, 205 in Fig. 9) is provided which filter unit (170 in Fig. 8 or 205 in Fig. 9) generates smooth transitions of parameters which are affected by the hearing program switching (from directional to omnidirectional, or vice versa), in that values of the parameters to be changed (through unit 40 or directly from 15) by a hearing program switching (from directional to omnidirectional, or vice versa) are passed through the filter unit in order to obtain a smooth transition from a momentary to a desired parameter value (col. 9, lines 14-25).

Regarding claim 22, although not explicitly show, the filter unit (rectifier in Fig. 8 or 9) inherently unit comprises a ramp generator.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 13, 14, 17, 18, 13/19, 14/19, 17/19, 18/19 and 22/23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killion in view of Ruegg (US 3,875,349).

Regarding claims 13, 14, 17, 18, 13/19, 14/19, 17/19, 18/19 and 22/23, Killion teaches the smooth transition, but fails to show the program is selected by a manual intervention over an oversteer unit. Killion teaches an automatic control based on ambient signal level. Killion also suggests the manual intervention in another

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Fig. 1. Ruegg teaches a hearing aid not only need automatic control of the hearing program, it also needs manual control which will enable the user to have control over his/her hearing aid when he/she has a desire to change the program (col. 3, lines 36-41). Thus, it would have been obvious to one of ordinary skill in the art to modify Killion's system in view of Ruegg by having a manual intervention over an oversteer unit in order to enable the hearing aid's wearer to have a manual control over the hearing program when he/she wants have a change.

11. Claims 3, 4, 9, 10, 3/19, 4/19, 9/19, 10/19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killion in view of Schotz (US 4,633,495).

Regarding claims 3, 4, 9, 10, 3/19, 4/19, 9/19, 10/19 and 21, Killion fails to show the smooth transition corresponding to a step response of a low-pass filter. Killion teaches a general rectifier circuit, wherein one skilled in the art would have expected that any well known design for the rectifier circuit could be used without generating any unexpected result. Schotz teaches such a rectifier circuit with a response of a low-pass filter (col. 12, lines 43-44). Thus, it would have been obvious to one of ordinary skill in the art to modify Killion's system by using any well known design for the rectifier circuit, such as the one as taught in Schotz in order to determine the amplitude level.

12. Claims 15, 16, 15/19, 16/19 and 21/23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killion in view of Schotz as applied to claims 3, 4 and 21 above, and further in view of Ruegg.

Regarding claims 15, 16, 15/19, 16/19 and 21/23, Killion teaches the smooth transition using an automatic control based on ambient signal level, but fails to show the



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program is selected by a manual intervention over an oversteer unit. Killion also suggests the manual intervention in another embodiment as shown in Fig. 1. Ruegg teaches a hearing aid not only need automatic control of the hearing program, it also needs manual control which will enable the user to have control over his/her hearing aid when he/she has a desire to change the program (col. 3, lines 36-41). Thus, it would have been obvious to one of ordinary skill in the art to further modify Killion's system in view of Schotz and Ruegg by having a manual intervention over an oversteer unit in order to enable the hearing aid's wearer to have a manual control over the hearing program when he/she wants have a change.

13. Claims 1, 2, 5, 6, 13, 14, 17, 18, 1/19, 2/19, 5/19, 6/19, 13/19, 14/19, 17/19, 18/19, 20, 22 and 22/23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al (US 5,477,270) in view of Traini, Jr. (US 5,361,378).

In view of 112, 1<sup>st</sup> paragraph rejection above, the claims are rejected under broadest interpretation.

Park discloses a method for operating a device (video camera) in which one of several possible hearing programs (sound in closed-up or far way) can be selected at a given time in order to adjust to a momentary acoustic surround situation in that parameters of a transfer function (for example in Fig. 8 or 9, the parameters of unit 40 define the transfer function) provided between a microphone (20 and 15 in Fig. 8 or 9) and a hearer (although not shown, he/she inherently wears the hearing aid) can be changed (from directional to omni-directional), whereas the parameters to be changed (unit 40 or omni-directional response goes unaltered) according to the hearing program

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switching are adjusted from a momentary value to a desired value in a smooth manner (col. 9, lines 14-25) in order to provide a smooth transition from one hearing program to another. The claimed momentary acoustic surround (according to Webster's dictionary, surround means ambient environment) situation reads on the situation when a person's voice (acoustic) is supposed to be close (surround or different ambient environment) to the camera or when a person's voice (acoustic) is supposed to be far way (surround or different ambient environment) from the camera.

In terms of the claimed "fixed manner", the parameters in Park will be fixed when the user of the video camera fixed the lens of the camera at same distance from the object.

Regarding claims 1 and 20, Park fails to explicitly show the hearing device. Traini teaches a similar video camera using headphones as the hearing device, so the person controlling the video camera can hear through the headphone what is being recorded simultaneously. Thus, it would have been obvious to one of ordinary skill in the art to modify Park's camera by having headphones connecting into it as taught by Traini in order to allow the person controlling the video camera to hear what is being record while selectively adjust the sound and image perception.

Regarding claim 2, although not explicitly show, the change from wide to tele (or vice versa) is extended over a give a time range. See Fig. 5. Park shows the gradual decrement and gradual increment which also inherently has a time range.

Regarding claims 5, 6 and 22, although not explicitly spelled out, the smooth transition as shown in Fig. 5 or 7 inherently is generated using a ramp generator.

Regarding claims 13, 14, 17, 18, 1/19, 2/19, 5/19, 6/19, 13/19, 14/19, 17/19, 18/19 and 22/23, Park shows the manual intervention over an oversteer unit (110, Rv).

### ***Response to Arguments***

14. Applicant's arguments filed 8/23/04 have been fully considered but they are not persuasive.

Applicant argued that Killion fails to teach "a fixed adjustment of transfer function parameter".

It is noticed that the claim language is actually "the parameters ... are adjusted ... in a smooth and fixed manner". There is no "fixed adjustment" being claimed. Furthermore, this limitation has been rejected under 112, 1<sup>st</sup> paragraph discussed above. In addition to this, the prior art rejection also provides a statement explaining how to read this limitation in view of Killion or Park.

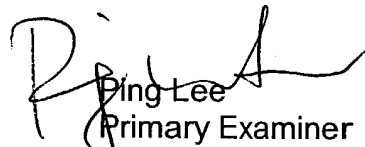
Applicant argued that Park fails to show the changes are based on any acoustic information.

It is noticed that the claimed limitation is "to adjust to a momentary acoustic surround situation". Since Park shows the change is adjust to a momentary voice at a certain distance (different ambient environment), Park shows the claimed limitation.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865. The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Ping Lee  
Primary Examiner  
Art Unit 2644

pwl